has written is consistent, incisive, and clarifying. Anyone who has come to realize the looseness of thought and confusion of meanings that pervade most discussions of the standard of living will welcome this discriminating commentary.

Throughout the book it is apparent that Mr. Bowley is discussing not statistical problems at large but the concrete statistical problems he has himself encountered. He is giving some of his statistical reminiscences. This quality of his work, in one sense a limitation, is at the same time perhaps its most interesting feature and even its cardinal merit. For here is a book of statistical experience; and statistical experience is not easy to put into books. Raw data, good and bad, we have in plenty. Of competent treatises on pure statistical theory there are not a few. But to bring together the facts in harmony with the principles we need statistical insight and a sense of statistical values that only experience can originally give, and that only the experienced teacher can impart. Were there some statistical clinic, some *atelier*, where masters of the craft gave themselves over to training others by direct contact and example, the novitiate in statistics would be far more effectual than it now ordinarily is. Unfortunately such training is rarely to be had. Those who serve their apprenticeship in government bureaus too often acquire habits rather than experience, and stiffen in the routine of a rule of thumb. Where competent personal guidance is thus lacking the student falls back on books. Hence it is that such a book as this which Mr. Bowley now gives us has special significance and promise of usefulness. It is no epoch-making achievement; but it represents a more than usually successful attempt to occupy the difficult middle ground of statistical procedure where fact and theory meet in scientific interpretation.

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Some Problems in Market Distribution. By A. W. SHAW. Cambridge: Harvard University Press, 1915. 12mo, pp. 119. $1.00.

Much the greater part of this little volume was published under the foregoing title in the *Quarterly Journal of Economics* for August, 1912. The new material is to be found in the first chapter, but even this is familiar to those students who have attended the author's course of lectures. None the less it is satisfactory to have this full and convenient expression of Mr. Shaw's ideas. They are well worth knowing.

Mr. Shaw has declared war upon the empirical, rule-of-thumb methods of the merchant—the business man who is engaged in the distributive process. What the manufacturer has done, and is doing, says Mr. Shaw, in the standardization of his work, in solving his problems by scientific methods, the "manager" should do in his work. At present "selling is on a purely experimental basis" (p. 41), and the consequence is a vast amount of lost motion. "The crux of the distributive problem is the proper exercise of the selling function" (p. 107). For "society can no more afford an ill-adjusted system of distribution than it can inefficient and wasteful methods of production" (p. 44).

The first step toward a betterment of business methods is a scientific approach to the business problems. This means a careful analysis of all business operations. Chap. i propounds the theoretical basis for such an approach. In brief the theory is this: All business activities have a common underlying principle—"the application of motion to material." They fall naturally into these three classes: (1) activities of production, which change the form of materials, (2) activities of distribution, which change the place and ownership, and (3) "facilitating activities," or administration. The different phases of these activities are found to be analogous. Just as production has its problems of material, labor, and organization, so has distribution its problems of materials (ideas about goods), of selling agencies, and of organization. Just as production has its problems of plant location, plant construction, and plant equipment, so the facilitating activities (administration) have their problems of location, construction, and equipment. The business man, the "manager," finds by means of such an analysis three sets of problems; these within the four walls of his plant, the internal problems, and two sorts of social problems, one connected with his labor and market, and the other consisting of the system of social control known as "the law, the government, and public opinion." To isolate and to segregate those various problems is the manager's first duty. He must withdraw himself sufficiently from the daily routine to take a broad point of view, and yet he must forever keep in touch with the "symptomatic details."

What this means is that the business man "must introduce the laboratory point of view" (p. 44). Let him apply the laboratory method to his price policies to determine whether he will sell "at the market minus," "at the market," or "at the market plus" (chap. ii). Let him apply it to his selling agencies to determine whether he will employ (1) middlemen, (2) producers' salesmen, or (3) advertising (chap. iii). And finally let him apply it to his analysis of the market for his product

(chap. iv). A simple application of the statistician's law of averages will enable the business man to perform experiments analogous to those of the chemist and the physicist. He can send out a series of test letters and analyze the response with scientific accuracy.

From first to last here is a plea for the application of scientific laboratory methods to the problem of distribution. "The engineer does not choose material for a bridge by building a bridge of the material and waiting to see whether it stands. He first tests the material in the laboratory. That is what the business man must do" (p. 10).

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Inventors and Money-Makers. By F. W. TAUSSIG. New York: Macmillan, 1915. 8vo, pp. 138. $1.00.

There is a widespread interest in character analysis. It is evinced in a number of fields, notably in industry, education, and criminology. These fields are calling upon psychology to lend its principles and methods to the task of interpreting human behavior and measuring human capacities. In recognition of this general interest in character analysis Professor Taussig offers this little volume wherein he attempts to analyze two important types—the inventor and the money-maker. The book contains the substance of a series of lectures at Brown University.

The subject is frankly limited to the place occupied by the instincts in determining the behavior of these types. The author proposes the doctrine that men are led to invent and to make money because of the residence within them of spontaneous impulses to activity. He stoutly opposes the doctrine that hedonistic factors initiate these industrial activities. True, pleasantness and unpleasantness may be present, but these factors represent something added by experience. The instinct in its pristine form is inherently blind.

In the analysis of inventive genius the author recognizes a mixture of many motives, but affirms that the chief motive power is an innate spontaneous tendency to activity which, for want of a better term, he calls the instinct of contrivance. After showing the manifestations of this in the individual inventor, the author relates the instinct to such economic situations as minute partition of labor, wages system, and limitation of output as practiced by labor unions. He concludes that these conditions are inimical to the free and healthful exercise of the instinct of contrivance and tend to smother it. Doubts may be entertained as to the validity of Professor Taussig's pessimistic note for two